

STS-98 (B1105)
Pre-launch MMT Review
Program
February 5, 2001
Solid Rocket Booster

AGENDA	
Presenter:	Parker Counts
Organization/Date:	USA-SRB /2-5-01

- STS-97 Postflight Assessment
- Unfired LH Lower Strut System "A" NSI Pressure Cartridge IFA
- Technical Issues
- BSM Throat Crack Noted After Lot ABM Acceptance Test
- Readiness Assessment

STS-97 POSTFLIGHT ASSESSMENT ANOMALY

Presenter:

Robert Wright

Organization/Date:

USA-SRB /2-5-01

NSI Pressure Cartridge Failed to Fire

Problem

- System "A" NSI Pressure Cartridge in left Aft Lower Strut did not fire
 - Criticality 1R failure of SRB Separation System

Previous Discussion

- Confirmed Orbiter and ET cabling performed nominally
- Confirmed no anomaly of pyrotechnic NSI
- No anomalies found in complete testing of aft Integrated Electronics Assembly (IEA)
- Failure attributed to watertight reusable strut ordnance cable
 - Gross shield damage noted
 - Most probable cause identified as handling damage unique to the ET Attach Ring strut reusable strut cables

STS-98/105-106

STS-97 POSTFLIGHT ASSESSMENT ANOMALY

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Robert Wright

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USA-SRB /2-5-01

Previous Discussion (cont.)

- Performed x-ray inspection and electrical tests of STS-98 reusable strut ordnance cables
 - Replaced one suspect upper strut reusable ordnance cable
 - Re-terminated one suspect lower strut reusable ordnance cable
 - Replaced one suspect forward separation bolt ordnance cable
- Work was in progress to perform x-ray inspections and electrical tests of additional cables from inventory

Discussion

- X-ray inspection and electrical tests of 223 flight cables from inventory completed
 - Four cables were identified with a break in a conductor
 - No other cables inspected exhibited shield damage similar to that found on STS-97 IFA cable
 - Analyses concluded conductor breaks were not recent occurrences

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Discussion (cont.)

- Corrective actions implemented for STS-98 mission
 - STS-98 rolled back to VAB for inspection and testing of system tunnel cables
 - Completed x-ray inspections and electrical tests of 36 of 38 system tunnel cables with no anomalies noted
 - Nozzle jettison cables, one per side, were not inspected or tested due to inaccessibility and function is Crit 3

Rationale for Flight

- Installed watertight reusable ordnance strut cables have been:
 - X-rayed; anomalies noted and repaired or replaced
 - Successfully tested electrically:
 - Continuity (& wiggle), IR, DWV and NSI simulator test *
- Inspection and tests of installed system tunnel cables found no anomalies or suspect conditions on STS-98

STS-98/105-106